

BASIN-WIDE ISSUE 5
(CONJUNCTIVE MANAGEMENT GENERAL PROVISION)

In Re SRBA
Twin Falls County Civil Case No. 39576
Sub-Case No. 91-00005

Director's Response to Opening Briefs

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I. INTRODUCTION

The Director of the Idaho Department of Water Resources (IDWR) submits this response pursuant to the “Order Setting Trial Date, Final Pre-Trial Motions and Briefing Schedule for Basin-Wide Issue 5 (Conjunctive Management General Provision) and Order for Alternative Dispute Resolution -- I.R.C.P. 16” issued by the SRBA District Court on May 26, 2000, and amended on July 7, 2000. This response is IDWR’s explanatory reply to the arguments raised in the opening briefs filed in subcase no. 91-00005 Basin-Wide Issue 5 and is not intended to open a new objection period.

This response does not reiterate the information presented in the 1999 Supplemental Director’s Report to the SRBA District Court dated December 30, 1999. Instead, specific areas of the report are clarified and augmented to address specific issues identified in the opening briefs submitted by the parties. This report focuses on the following topics: scope of conjunctive management; purpose of the general provision; statutory authority for water management; technical limitations; and IDWR’s implementation strategy for conjunctive management.

II. SCOPE OF CONJUNCTIVE MANAGEMENT

As used by IDWR, the term “conjunctive management” is defined in the Rules for Conjunctive Management of Surface and Ground Water Resources, IDAPA 37, Title 03, Chapter 11. Conjunctive management is defined in these rules as the “Legal and hydrologic integration of administration of the diversion and use of water under water rights from surface and ground water resources, including areas having a common ground water supply.” In practical terms, conjunctive management is the combined administration of water rights from ground water sources together with water rights from “hydraulically connected” surface water sources recognizing the relative priorities of the rights, the physical characteristics and significance of source connectedness, and the

differences between impacts from surface water diversions versus the dispersed and delayed impacts from ground water diversions. “Hydraulically connected” surface and ground water means that within these sources, portions of the surface water can become ground water or vice versa.

In a broader context, administration of water rights from connected sources includes three distinct administrative situations: (1) where ground water is administered conjunctively with surface water, as described in the preceding paragraph; (2) where water rights from connected ground water sources are administered together; and (3) where water rights from various connected surface water sources are administered together.

III. PURPOSE OF THE GENERAL PROVISION

IDWR plans to use separate but related procedures to administer water rights in the three administrative situations described above. To provide for the effective administration of water rights from various sources, a general provision is needed to establish the following:

- (1) Unless specifically identified otherwise, all water rights within the Snake River Basin are from connected sources and are to be administered together recognizing the extent and timing of interconnections and the effects of diverting from one source on earlier priority water rights from other connected sources;
- (2) Those water rights within a sub-basin that are to be administered separately from other water rights within the sub-basin because no interconnection exists or because of long-standing, separate administration based on prior decrees; and

- (3) Those water rights within a sub-basin that are to be administered separately from other water rights within the Snake River Basin because no interconnection exists.

The conjunctive management general provision proposed by IDWR provides for administration of water rights from various connected sources as illustrated below.

Where water rights from ground water sources are to be administered conjunctively with water rights from surface water sources, the third paragraph of the proposed general provision provides that “All water rights within Basin ___ are from connected sources of water in the Snake River Basin and shall be administered conjunctively.” This establishes the connection between the sources and would enable IDWR to focus on the *extent* of connection, not the *existence* of connection. Water rights from sources that would not be subject to administration with water rights from other sources would be identified in paragraphs one and/or two, which state respectively “The following water rights from the following sources of water in Basin ___ shall be administered separately from all other water rights in Basin ___,” and “The following water rights from the following sources of water in Basin ___ shall be administered separately from all other water rights in the Snake River Basin.”

Where water rights for ground water at one location are to be administered together with water rights for ground water in another location, the third paragraph of the proposed general provision establishes the connection between the water rights. The existence of connectivity between ground water rights needs to be defined to allow IDWR to implement effective administration between these rights, just as connectivity needs to be defined between ground water sources hydraulically connected to surface water sources.

Where water rights from one surface water source are connected with water rights from another surface water source, such connections have not always been historically recognized in administration. For example, the Portneuf River is

administered as though it is separate from the Snake River, even though the rivers are physically connected. The first and second paragraphs of the proposed general provision serve to identify those situations where administration would continue to be separate in the future. Water rights not identified in these paragraphs would be jointly administered in the future if the water rights are from sources where water from one source supplies water to the other source.

Concerns have been expressed regarding situations where sources, while interconnected in the Snake River Basin, are not directly connected physically. For example, the Boise River is not directly connected with the Payette River. Although distribution curtailments on both rivers might be needed to satisfy a senior water right in the Snake River, curtailment of a junior water right on the Boise River would not provide water for an earlier priority water right on the Payette River when a more senior water right on the Snake River is not calling for delivery of water. IDWR does not, nor will it in the future, simply curtail distribution to all junior water rights within a basin regardless of source connectivity in an attempt to satisfy a senior water right. The conjunctive management general provision, as now proposed, neither requires nor supports such a draconian administrative approach. Instead, the establishment of connectivity provides a basis and framework for distribution based on the *extent* of interconnection.

Concerns have also been expressed by some water right holders that other arguments exist for administering water rights separately, such as the equity of long-standing nonconjunctive administration. To reduce future controversy during IDWR's administration of water rights, the SRBA Court needs to determine the full extent of the legal basis under which water rights are to be administered separately from other water rights, preferably as part of Basin-Wide Issue 5.

IV. LEGAL AUTHORITY

a. Constitutional and Statutory Authority

The state has the broad authority to regulate the use of waters that have been appropriated for beneficial use. Art. 15, Sec. 1, Idaho Const. IDWR has been vested with the authority to supervise the appropriation of water for beneficial use pursuant to the appropriation doctrine. Idaho Code Sections 42-101, 42-237a, 42-602, and 42-1805.

The Director of IDWR has the authority to adopt rules for the distribution of water from surface water and ground water sources as necessary to carry out the laws in accordance with the priorities of the rights of the users thereof. Idaho Code Section 42-603. Further, Idaho Code Section 42-1805(8) provides the Director with general authority to promulgate rules implementing or effectuating the powers and duties of IDWR. Thus IDWR has the authority to administer water rights and will have the ability to conjunctively manage water distribution once partial decrees are entered.

Section 42-604, Idaho Code, authorizes the Director to create water districts for the purpose of water distribution, and provides that each water district is an instrumentality of the State of Idaho. Section 42-602, Idaho Code, provides that the Director shall have direction and control of water distribution within a water district. Section 42-605, Idaho Code, provides for the Director to appoint and supervise a watermaster upon election by water users within the water district, and provides that the Director of IDWR is empowered to remove any watermaster who fails to perform the watermaster's duty.

Further, in connection with the Director's authority to control use of ground water rights, Section 42-237a(g), Idaho Code, authorizes the Director to include adjudicated ground water rights in an organized water district. Such ground water rights may be included in an organized water district when the ground water rights affect the flow of water in any stream within the water district.

An essential component of IDWR's strategy to fully implement conjunctive management is provided by Chapter 52, Title 42, Idaho Code, authorizing the establishment of ground water districts. These statutes provide a method for ground water users to associate themselves to advance common interests as ground water users. A principal purpose of a ground water district is to develop and operate mitigation plans designed to mitigate material injury caused by ground water use within the district upon senior water uses either within or outside district boundaries.

b. IDWR Water Management Rules

Several sets of rules are currently in place to assist IDWR with water management. IDWR intends to promulgate additional rules to address those areas of conjunctive management that have not been fully implemented. Current rules of IDWR include: Rules of Procedure of the Idaho Department of Water Resources, IDAPA 37.01.01; Water Appropriation Rules, IDAPA 37.03.08; Rules for Conjunctive Management of Surface and Ground Water Resources, IDAPA 37.03.11; and Idaho Department of Water Resources Water Distribution Rules – Water District 34, IDAPA 37.03.12. Future rule making will include water management rules and other modules of rules addressing other administrative issues or geographic locations.

IDWR adopted Final Rules Governing Conjunctive Management of Surface and Ground Water ("the rules"), effective October 7, 1994. The rules are written to apply to all situations where the diversion and use of water under junior-priority ground water rights, either individually or collectively, cause material injury to uses of water under senior-priority water rights. Further, the rules are written to acknowledge all elements of the prior appropriation doctrine as established by Idaho law. The rules also integrate the administration and use of surface and ground water in a manner consistent with the policy of reasonable use, as established by Idaho law.

IDWR's existing conjunctive management rules set forth procedures for responding to a call made by the holder of a senior-priority surface or ground water right

against the holder of a junior-priority ground water right in an area having a connected or common ground water supply. The rules provide that if a call is made, the Director will consider all data and information, available at the time the call is made, quantifying the relationship between ground and surface water. The existence of a general provision in a basin, which specifies those water rights that are and are not subject to conjunctive management, provides necessary boundaries for making an appropriate determination in response to a call.

V. TECHNICAL LIMITATIONS

Water distribution should be based on the best data and technology available. It is presently not possible to make determinations precisely quantifying the relationships between all water rights under all conditions, at least between some hydraulically connected surface and ground water sources, because hydraulic and geologic data are not currently available for all conditions. Appropriate conjunctive management depends on detailed data. Unfortunately, adequate data are not always available, and both data and the technology to collect and use data are evolving and improving. To further complicate adequacy of data, changes in hydrogeologic setting can occur such as those that sometimes result from seismic activity. Therefore, precisely fixed definitions regarding distribution between water rights for surface water and ground water based on present conditions would likely create future inequities counter to the efficient and proper distribution of water rights.

An example of the complexity of inter-relationships between water rights is provided by considering just a few ground water rights. The interaction between two wells, a and b, can be described by quantifying the one relationship between the two wells. When a third well, c, is added, two more relationships must be quantified – the relationship between b and c and the relationship between a and c. When a fourth well is added three more relationships must be quantified, one each for the relationships between d and a, b and c. As wells are added, the number of relationships is increased by the previous number of wells. A system containing hundreds or thousands of wells

involves thousands if not tens of thousands of relationships. These relationships are further complicated by interactions between ground water and surface water. Thus, the description of all such relationships within the SRBA decrees is impractical, if not impossible.

VI. IMPLEMENTATION PLAN

Recognizing that perfect knowledge about the inter-relationships between water rights within a basin will not be available, IDWR has developed a strategy for fully implementing conjunctive management based upon the best data and science-based procedures available, once partial decrees are issued. This strategy can be achieved given the conjunctive management general provision that has been proposed. While this strategy is still in its formative stages, this section outlines the strategy as presently envisioned.

The implementation strategy for conjunctive management is based on the premise that sub-basins within the area of the SRBA have unique geologic and hydraulic conditions, water requirements, inter-relationships between water rights, and recharge opportunities. The strategy is based on recognizing these unique attributes and implementing conjunctive management on a sub-basin basis utilizing the best information available for each. The strategy will not place the burden of initiating administration on either ground water users or surface water users. That initial burden will be assumed by IDWR, with opportunities for participation and recourse afforded to all parties. While IDWR is in the initial phases of this process, much progress has been made. To demonstrate how implementation is intended, the Eastern Snake Plain Aquifer (ESPA) is used as an example. The ESPA represents only a portion of the SRBA, but it does illustrate the type of evaluation that can be used throughout the Snake River Basin.

a. Eastern Snake Plain Aquifer Research

Water distribution in the Upper Snake River Basin represents the most sophisticated water distribution system in Idaho. A computerized system has been used for water accounting on the river and its tributaries since 1977. This system has been continually improved, and detailed information about reservoir levels, flows by river reach, water user accounts (including storage and natural flow) are available to interested parties via the Internet.

Much is known about ground water in the ESPA (see Appendix, Figure 1). Data gathering and database development have been underway for more than 30 years. IDWR and the University of Idaho jointly developed a ground water flow model. This model consisted of two separate programs, a recharge module and an aquifer response module. This model has recently been converted to a nonproprietary modeling technique developed by the U. S. Geological Survey (MODFLOW). IDWR is using the model to define “aquifer response zones” based on cooperative studies undertaken by IDWR and the University of Idaho. The purpose of the response zones is to quantify the impact of ground water withdrawals from ground water sources on hydraulically connected reaches of the Snake River.

IDWR has been developing aquifer response zones for the past two years. While the technical processes used to determine the response zones are beyond the scope of this report, these processes can be summarized as follows. A steady state response function was used to compute responses from individual cells, each representing a 5-km square area of the ESPA, in a MODFLOW model. Zones having similar response characteristics were defined by assessing the impact of pumping from the ESPA on the four reaches of the Snake River that are known to be hydraulically connected to the ESPA. The boundaries of each zone were determined based on similarities in impacts to the connected river reaches. The zonal boundaries were adjusted to (1) encompass contiguous irrigated areas, (2) coincide where possible with

existing administrative boundaries, and (3) coincide with the Public Land Survey. The 22 resulting zones are shown in the Appendix, Figure 2.

The resulting ESPA ground water response zones provide a technical basis for evaluating the effects of ground water withdrawals and ground water recharge on hydraulically connected reaches of the Snake River. The zones will be used as part of a technical framework to implement conjunctive management. While based on the best information currently available, zonal boundaries may change as additional and more refined data are collected and improved modeling procedures are developed.

b. Injury

When a call is made for the distribution of water, the first question that is asked is who has to prove injury or non-injury. Does the senior surface right holder have to prove that its water right is being injured, or does the junior ground water right holder have to prove its withdrawals are not causing injury? As a general rule, when a junior appropriator seeks to divert water on the grounds that it does not diminish the supply of water needed for earlier priority rights, the burden of proof is on the junior appropriator to show that a prior appropriator would not be injured or affected by the diversion. See *e.g.*, *Cantlin v. Carter*, 88 Idaho 179, 186-187, 397 P.2d 761 (1964); *Moe v. Harger*, 10 Idaho, 302, 77 P. 645, 646-647 (1904). This rule applies equally to the junior appropriator of ground water. See *Silkey v. Tiegs*, 54 Idaho 126, 28 P.2d 1037 (1934); See also Wells A. Hutchins, *The Idaho Law of Water Rights*, 5 Idaho Law Rev. 1, 244 (1968).

However, as Professor Grant observed in a 1987 article, there is a line of cases in Idaho where a somewhat different conclusion has been reached concerning the party with the burden of proof. Douglas L. Grant, *The Complexities of Managing Hydrologically Connected Surface Water and Ground Water Under the Appropriation Doctrine*, 22 Land and Water Law Rev. 1 (1987) (referring to *Jones v. Vanausdeln*, 28 Idaho 743, 155 P. 615 (1916) and *Bower v. Moorman*, 27 Idaho 162, 147 P. 496

(1915)). Where the facts are such that there is no clear hydraulic connection between the two points of diversion or sources of supply (e.g., as between a ground water supply and a surface water supply), the burden of proof is on the senior appropriator to establish that such a connection exists. *Id.* at 92. “But once hydrologic connection is shown, it becomes probable that the junior diversion interferes with the senior right if the senior’s source is fully appropriated by rights prior to the junior diversion. Then the junior appropriator—the person arguing against probabilities—must show his particular water use somehow does not cause interference.” *Id.* at 92-93. IDWR recognizes the difficult burden on the junior to prove the negative -- that is, no injury.

The statement in the conjunctive management general provision that “all water rights within Basin ___ are from connected sources of water” establishes hydraulic connection, but does not establish the degree of connectivity. With hydraulic connection established, IDWR proposes to use unit response functions for each response zone to determine presumptive depletions, quantifying the degree of connectivity and associated impacts. A presumptive depletion is the amount of depletion to connected surface water sources calculated to occur using a ground water model for a specific use of ground water. When depletions reduce the quantity of water needed to satisfy earlier priority water rights, injury may occur.

c. Implementation of Conjunctive Management for the ESPA

Quantification of depletions for the ESPA is still being completed. IDWR is continuing to refine its ground water model and is pursuing funding partnerships to enhance this effort. In addition, IDWR is planning to finalize water management rules by continuing negotiated rule making. IDWR is prepared to initiate negotiated rule making to develop implementation rules for conjunctive management specific to the ESPA under the umbrella of the water management rules. Negotiated rule making will maximize the potential for acceptance by water right holders. The water right holders will be provided with an opportunity to factually rebut the presumptive depletions included in the rules. Rebuttable, presumptive depletions may be modified as new data are collected or as changes in physical conditions occur. Under IDWR’s rules,

aggrieved water right holders may seek judicial relief, if necessary, to challenge the determinations of IDWR.

When partial decrees are issued and negotiated rules adopted, one or more water districts will be created by IDWR for distribution purposes. As stated above, watermasters are elected by the waterusers, appointed by the Director, and serve under his direction in accordance with the provisions of Section 42-602, Idaho Code. IDWR supervises watermasters and provides direction on the administration of water rights and the interpretation of decrees.

The implementation plan proposed for the ESPA can be used for other sub-basins throughout the Snake River Basin. The development of area-specific, negotiated rules will be initiated when water rights in the sub-basin have been defined by partial decrees, sufficient technical basis has been developed to quantify the degree and significance of connectedness, and distribution is required either by conflict among the water right holders or by public interest considerations. The negotiated rules will provide for water right holder participation and legislative oversight and will be uniquely tailored to the physical characteristics of each sub-basin.

VII. CONCLUSION

IDWR has the statutory authority and responsibility to administer water rights from both ground and surface water sources, as well as between the sources. Flexibility in management is particularly important in view of improving information and technology and changes in hydrogeology over time. The concerns and issues expressed in the opening briefs by the parties in this matter can be addressed by the approach presented by IDWR, utilizing the general provision as recommended by IDWR. However, some modification to the recommended general provision by the SRBA Court may be reasonable to clarify the provision in light of the concerns and issues raised by the parties and the ongoing mediation effort.

Appendix

Figure 1. Ground water flow in the Eastern Snake Plain Aquifer

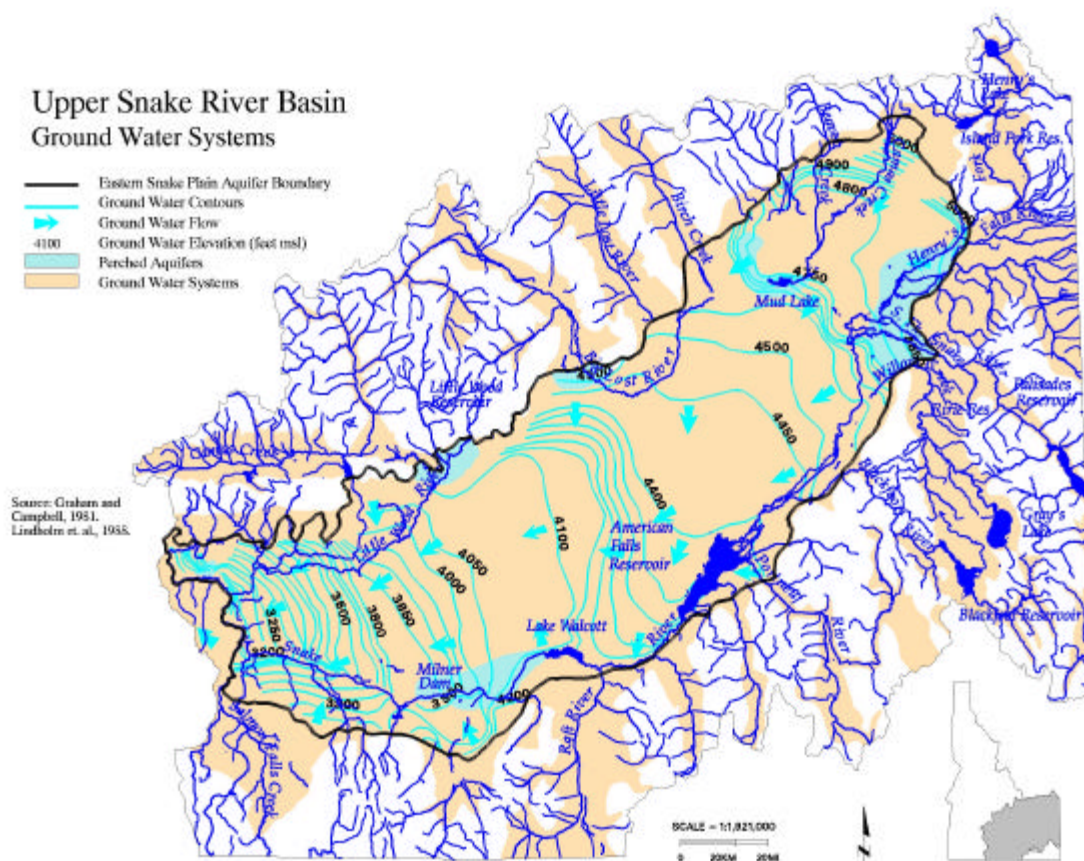


Figure 2. Ground Water Response Zones in the Eastern Snake Plain Aquifer

